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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/024,637	02/17/1998	REINHOLD WIMBERGER FRIEDL	PHN-16.244	8590

7590

01/02/2003

U S PHILLIPS
580 WHITE PLAINS ROAD
TARRYTOWN, NY 10591

EXAMINER

DINH, TUAN T

ART UNIT PAPER NUMBER

2827

DATE MAILED: 01/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/024,637

Applicant(s)

WIMBERGER FRIEDL ET AL.

Examiner

Tuan T Dinh

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al (U. S. Patent 5,406,027) in view of Prescott (U. S. Patent 3,564,164) and von Bonin et al. (U. S. Patent 4,992,481).

As to claims 8, and 12-14, Matsumoto discloses a printed circuit (1, column 2, line 63) as shown in figures 1E, 4, and 6-7 provided with a capping layer (17, column 3, lines 63-66). The printed circuit (1), which is a portable apparatus or mobile phone, comprises a printed circuit board (15, column 3, line 56) having at least one component (see figures 1, 4). The capping layer inherently possesses exhibits a variation of mechanical properties (column 3, lines 37-50, column 4, lines 21-24, and 33-35) in a direction at right angles (see figures 4, 6, and 7) to a surface of the capping layer such as the variation of the mechanical properties comprises a continuous increase in hardness of the capping layer. The circuit board (15) is provided with a synthetic resin-capping layer (17, column 3, lines 63-66) constituted by the housing of the mobile telephone.

Matsumoto does not show the capping layer comprising foam forming reactive injection moulding material, and a continuous increase in hardness of the capping layer.

Prescott teaches a telephone handset (10-figure 1) comprising a substrate (23, 24) and components provided capping layer comprising foam forming reactive injection moulding material (30, column 2, lines 60-65, column 3, line 25).

von Bonin teaches a foam material having mechanical properties (column 1, lines 58-61) including a mechanical strength and hardness increase (column 9, lines 25-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use foam forming reactive injection moulding material having a mechanical properties as taught by Prescott and von Bonin to employ the capping layer of Matsumoto in order to decrease an incidence of failure resulting from impact, vibration, and protect against moisture loss before installation and solidify on drying after installation. It also provides a heat dissipate from components when operates on a printed circuit board.

As to claim 11, Matsumoto discloses a mobile telephone (1, column 2, line 63) as shown in figures 1, 4-7 comprising a housing (2, column 3, line 52) having a circuit board (15, column 3, line 56). The circuit board (15) is provided with a synthetic resin-capping layer (17, column 3, lines 63-66) inherently possesses having a continuously varying hardness constituted by the housing of the mobile telephone.

Matsumoto does not show the capping layer comprising foam forming reactive injection moulding material, and a continuous increase in hardness of the capping layer.

Prescott teaches a telephone handset (10-figure 1) comprising a substrate (23, 24) and components provided capping layer comprising foam forming reactive injection moulding material (30, column 2, lines 60-65, column 3, line 25).

von Bonin teaches a foam material having mechanical properties (column 1, lines 58-61) including a mechanical strength and hardness increase (column 9, lines 25-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use foam forming reactive injection moulding material as taught by Prescott and von Bonin to employ the capping layer of Matsumoto in order to decrease an incidence of failure resulting from impact and vibration and protect against moisture loss before installation and solidify on drying after installation. It also provides a heat dissipate from components when operates on a printed circuit board.

Response to Arguments

3. Applicant's arguments with respect to claims 8 and 11-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T Dinh whose telephone number is 703-306-5856. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TD

December 19, 2002.



DAVID L. TALBOTT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800